The Biosimilars Act: Promoting or Discouraging the Development of Generic Biologics?

A tug-of-war between generic and innovator biologics seems to be where drug developers are headed.

BY JOANNA T. BROUGHER, ESQ, MPH

The Biologics Price Competition and Innovation Act, or Biosimilars Act as it is commonly referred to, provides a regulatory approval pathway for generic biologics (also called biosimilars or follow-on biologics in the scientific community) similar to the generic drug pathway provided under the Hatch-Waxman Act.

Signed into law by President Obama on March 23, 2010, the Biosimilars Act is part of the healthcare reform provisions included in the Patent Protection and Affordable Care Act. The act outlines the requirements for determining "biosimilarity" and "interchangeability," provides the timeline for engaging in infringement, and sets forth the exclusivity period awarded to the innovator biologic as well as the first-filer biosimilar.

Like the Hatch-Waxman Act, the Biosimilars Act provides innovator biologics manufacturers with market exclusivity and delays market entry for manufacturers of generic biologics. Moreover, the act presents higher hurdles for manufacturers of generic biologics to overcome before they can enter the market, effectively delaying generic competition for a longer period of time. Rather than promoting the development of generic biologics, the Biosimilars Act may instead encourage the development of new innovative biologics.

Joanna T. Brougher, Esq., MPH, *is an intellectual-property consultant and adjunct lecturer on health policy and management at the Harvard School of Public Health. She can be reached at jbrough@hsph.harvard.edu.*

Background

Biologics are defined by the Public Health Service Act as "a virus, therapeutic serum, toxin, antitoxin, vaccine, blood, blood component or derivative, allergenic product, or analogous product." Drugs, on the other hand, are defined as small-molecule compounds produced by purely chemical means.

Biologics are quickly gaining in the pharmaceutical market. Of the top 15 pharmaceuticals on the market in 2009, about one third are biologics.[1] In 2008, biologics accounted for about 30 percent of sales of the top 100 pharmaceutical products, and by 2014 are expected to account for half of all pharmaceutical sales.[2] Moreover, biologics are being approved by the U.S. Food and Drug Administration at a higher rate than are the so-called traditional, or small-molecule, drugs, suggesting that biologics may soon overtake them in the marketplace.

Despite the growth and success of biologics, manufacturers of generic biologics have struggled to enter the market. Biologics are more difficult to replicate because they are derived from living cells, and their molecules can be 100 to 1,000 times larger than traditional drugs.[3] Moreover, the costs to develop the necessary manufacturing capacity are greater because of the complexity of biologics. In addition, the FDA approval process for biologics is longer, more complicated, and, therefore, more expensive.[2]

The Biosimilars Act may present higher hurdles for manufacturers of biosimilars to overcome before entering the market, says Joanna T. Brougher, Esq., MPH.

Exclusivity period

One way that market entry for generics is delayed is by the market exclusivity period awarded to inno-

[1] IMS Health. Top 15 U.S. Pharmaceutical Products by Sales. www.imshealth.com/deployedfiles/imshealth/Global/Content/Staticile/Top_Line_Data/Top%2015%20Products%20by%20U.S.Sales.pdf.

[2] So AD, Katz SL. Biologics boondoggle. *New York Times*. March 7, 2010.

[3] Singer N. In pursuit of a pipeline of biological treatments. *New York Times*. Jan. 27, 2009.

vator biologics. Whereas the Hatch-Waxman Act provides innovator drugs with 5 years of market exclusivity, the Biosimilars Act provides innovator biologics with 12 years of market exclusivity.[4] During this 12-year period, the FDA is prevented from granting final approval to a biosimilar that references the innovator's biologic. As a result, generic biologics must wait longer before entering the market.

Generic biologics are further delayed by the exclusivity period awarded to the first approved generic biologic. Under Hatch-Waxman, a 180-day period of market exclusivity is awarded to the first approved generic drug applicant, after which time subsequent generic drugs can enter the market. Under the Biosimilars Act, the period of exclusivity depends on a number of factors and can range between 12 months and 42 months. In a basic scenario, for instance, the first generic biologic can have an exclusivity period of one year after commercial product launch.[5] Only after that one-year period expires can any subsequent generic biologics be approved. In another scenario, approval of subsequent generics may be delayed by 18 months, which may occur when there is a final court decision or dismissal (with or without prejudice) on all patents-in-suit against the first approved generic biologic.[6] In other words, if the first approved generic biologic and the innovator biologic engage in patent infringement, the innovator biologic may maintain market exclusivity throughout the duration of the infringement suit, and only upon a final court decision or dismissal can the first approved generic biologic be rewarded with 18 months of exclusivity. If the innovator biologic can prolong the duration of the infringement suit to at least 42 months, any subsequent generic biologic must wait 42 months after approval of the first generic biologic product.[7]

In the event that the generic is not sued for infringement by the innovator, any subsequent generic biologics must again wait 18 months after approval of the first generic biologic.[8] Under this scenario, the innovator and generic manufacturers may enter into a settlement agreement that would allow them to share the exclusivity period.[9] Use of settlement agreements can occur because, unlike with Hatch-Waxman, patent litigation is not required under the Biosimilars Act — instead, negotiation is encouraged. As a result, the innovator manufacturer can avoid litigation and negotiate a settlement with the generic manufacturer, thereby obtaining an additional period of marketing exclusivity as the generic manufacturer markets the innovator's product and pays royalties to the innovator. During this exclusivity period, the innovator can control the market, delaying generic biologics competition by up to 18 months.

Implications for the healthcare industry

The hurdles presented by the Biosimilars Act may have significant consequences for both healthcare providers and consumers. Such hurdles, coupled with the initial difficulty of copying biologics, may discourage biologics manufacturers from even developing a generic version. Instead, they may choose to develop and commercialize an innovator biologic, leaving the biologics industry with even fewer generic options.

One consequence of limited generic competition is high prices, which may, in turn, affect access to biologics — if there is no generic version of a particular biologic, patients will be faced with paying a higher price for the innovator biologic. If the price is prohibitively high, patients may even have to forgo that line of treatment altogether. The public's health, accordingly, may be affected by the limited availability of generic options.

On the other hand, by potentially discouraging generic competition, the Biosimilars Act may encourage the development of new biologic products. Rather than assuming the time and costs of replicating biologics that are already on the market, manufacturers may be more willing to develop new products that target different diseases and different populations. As a result, treatment options for more diseases may become available.

Conclusion

The Biosimilars Act may be considered to be the biologic industry's response to the Hatch-Waxman Act. Although the act provides an approval pathway for generic biologics similar to the approval pathway for generic drugs, it may also present higher hurdles for generic biologic manufacturers to overcome before entering the market. These hurdles may effectively delay generic competition for a longer period of time and instead encourage innovation and the development of new biologics.

Disclosure

Joanna T. Brougher, Esq., MPH, reports that she has no financial arrangements or affiliations with organizations or manufacturers of proprietary products mentioned in this article.

[4] Biosimilars Act, § 351(k)(7)(A).
[5] Biosimilars Act, § 351(k)(6)(A).
[6] Biosimilars Act, § 351(k)(6)(B).
[7] Biosimilars Act, § 351(k)(6)(C)(i).
[8] Biosimilars Act, § 351(k)(6)(C)(ii).
[9] Fazzolare DA. Gaming the biosimilars act: loopholes allow authorized interchangeable settlement agreements to delay authentic generic competition up to 18 months," *FDA Update*, July/August 2010.